**PSEG Nuclear LLC**
P.O. Box 236, Hancocks Bridge, NJ 08038-0236

PSEG Nuclear LLC

5/26/2020
LR-N20-0039

10 CFR 50.73

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Salem Nuclear Generating Station Unit 1
Renewed Facility Operating License No. DPR-70
NRC Docket No. 50-272

SUBJECT: LER 272/2020-001-00
Salem Unit 1 Manual Reactor Trip and Auxiliary Feed Water System Actuation

This Licensee Event Report, "Salem Unit 1 Manual Reactor Trip and Auxiliary Feed Water System Actuation," is submitted pursuant to 10 CFR 50.73(a)(2)(iv)(A).

Should you have any questions or comments regarding the submittal, please contact Mr. Thomas Cachaza of Regulatory Affairs at 856-339-5038.

There are no regulatory commitments contained in this letter.

Sincerely,

David Sharbaugh
Salem Plant Manager

Enclosure – LER 272/2020-001-00

cc: USNRC Regional Administrator – Region 1
USNRC NRR Project Manager – Salem
USNRC Senior Resident Inspector – Salem
NJ Department of Environmental Protection, Bureau of Nuclear Engineering
Commitment Coordinator, Salem Generating Station
Corporate Commitment Coordinator, PSEG Nuclear, LLC

***(The bcc list should not be submitted as part of the DCD submittal – remove this page prior to submittal and make the bcc distribution accordingly)***

bcc: President & Chief Nuclear Officer
Site Vice President – Salem
Plant Manager – Salem
Senior Director – Regulatory Operations and Nuclear Oversight
Director – Site Regulatory Compliance
Manager – Site Regulatory Compliance
Records Management

NRC FORM 366 (04-2020) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 04/30/2020

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

# LICENSEE EVENT REPORT (LER)

(See Page 2 for required number of digits/characters for each block)
(See NUREG-1022, R.3 for instruction and guidance for completing this form
http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/)

| 1. FACILITY NAME | 2. DOCKET NUMBER | 3. PAGE |
|---|---|---|
| Salem Generating Station – Unit 1 | 05000272 | 1 OF 2 |

**4. TITLE**
Salem Unit 1 Manual Reactor Trip and Auxiliary Feed Water System Actuation

| 5. EVENT DATE | | | 6. LER NUMBER | | | 7. REPORT DATE | | | 8. OTHER FACILITIES INVOLVED | |
|---|---|---|---|---|---|---|---|---|---|---|
| MONTH | DAY | YEAR | YEAR | SEQUENTIAL NUMBER | REV NO. | MONTH | DAY | YEAR | FACILITY NAME | DOCKET NUMBER |
| 03 | 25 | 2020 | 2020 | - 001 | - 00 | 05 | 26 | 2020 | FACILITY NAME | DOCKET NUMBER 05000 |

| 9. OPERATING MODE | 11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)* | | | |
|---|---|---|---|---|
| 1 | ☐ 20.2201(b) | ☐ 20.2203(a)(3)(i) | ☐ 50.73(a)(2)(ii)(A) | ☐ 50.73(a)(2)(viii)(A) |
| | ☐ 20.2201(d) | ☐ 20.2203(a)(3)(ii) | ☐ 50.73(a)(2)(ii)(B) | ☐ 50.73(a)(2)(viii)(B) |
| | ☐ 20.2203(a)(1) | ☐ 20.2203(a)(4) | ☐ 50.73(a)(2)(iii) | ☐ 50.73(a)(2)(ix)(A) |
| | ☐ 20.2203(a)(2)(i) | ☐ 50.36(c)(1)(i)(A) | ☑ 50.73(a)(2)(iv)(A) | ☐ 50.73(a)(2)(x) |
| **10. POWER LEVEL** | ☐ 20.2203(a)(2)(ii) | ☐ 50.36(c)(1)(ii)(A) | ☐ 50.73(a)(2)(v)(A) | ☐ 73.71(a)(4) |
| | ☐ 20.2203(a)(2)(iii) | ☐ 50.36(c)(2) | ☐ 50.73(a)(2)(v)(B) | ☐ 73.71(a)(5) |
| | ☐ 20.2203(a)(2)(iv) | ☐ 50.46(a)(3)(ii) | ☐ 50.73(a)(2)(v)(C) | ☐ 73.77(a)(1) |
| 017 | ☐ 20.2203(a)(2)(v) | ☐ 50.73(a)(2)(i)(A) | ☐ 50.73(a)(2)(v)(D) | ☐ 73.77(a)(2)(i) |
| | ☐ 20.2203(a)(2)(vi) | ☐ 50.73(a)(2)(i)(B) | ☐ 50.73(a)(2)(vii) | ☐ 73.77(a)(2)(ii) |
| | | ☐ 50.73(a)(2)(i)(C) | ☐ OTHER Specify in Abstract below or in NRC Form 366A | |

**12. LICENSEE CONTACT FOR THIS LER**

| LICENSEE CONTACT | TELEPHONE NUMBER *(Include Area Code)* |
|---|---|
| Thomas J. Cachaza, Senior Regulatory Compliance Engineer | 856-339-5038 |

**13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT**

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO ICES | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO ICES |
|---|---|---|---|---|---|---|---|---|---|
| B | AA | MG | E120 | Y | | | | | |

| 14. SUPPLEMENTAL REPORT EXPECTED | 15. EXPECTED SUBMISSION DATE | MONTH | DAY | YEAR |
|---|---|---|---|---|
| ☐ YES (If yes, complete 15. EXPECTED SUBMISSION DATE) ☑ NO | | | | |


ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

At 0056 on 3/25/2020, with Unit 1 at 17 percent power during a plant return from a scheduled refueling outage, the reactor was manually tripped due to a failure of the 11 Rod Control Motor Generator due to a malfunction of its associated Voltage Regulator. All systems responded normally post-trip. An actuation of the Auxiliary Feedwater system occurred following the manual reactor trip as expected due to low level in the steam generators. The unit was stabilized in Mode 3.

The failed equipment was repaired.

This event is reportable in accordance with 10 CFR 50.73(a)(2)(iv)(A).

# LICENSEE EVENT REPORT (LER)

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| 1. FACILITY NAME | 2. DOCKET | 3. LER NUMBER | | |
|---|---|---|---|---|
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER |
| Salem Generating Station – Unit 1 | 05000272 | 2020 | - 001 | - 00 |

**NARRATIVE**

## PLANT AND SYSTEM IDENTIFICATION

Westinghouse-Pressurized Water Reactor (PWR/4)
Rod Control Motor Generator (AA/MG)
Auxiliary Feedwater system (BA)
Steam Generator (SG)

## IDENTIFICATION OF OCCURRENCE

Event Date: March 25, 2020

## CONDITIONS PRIOR TO OCCURRENCE

Mode 1, operating at 17 percent power

## DESCRIPTION OF OCCURRRENCE

At 0056 on 3/25/2020, with Unit 1 at 17 percent power during a plant return from a scheduled refueling outage, the reactor was manually tripped due to a failure of the 11 Rod Control (AA) Motor Generator (MG) due to a malfunction of its associated Voltage Regulator. All systems responded normally post-trip. An actuation of the Auxiliary Feedwater (BA) system occurred following the manual reactor trip as expected due to low level in the Steam Generators (SG). The unit was stabilized in Mode 3.

This event is reportable pursuant to 10CFR50.73(a)(2)(iv)(A).

The motor generator manufacturer is the Electric Machinery Manufacturing Company. The model number is 77-S-905.

## CAUSE OF THE EVENT

The direct cause of the loss of field for the 11 MG set was due to the open circuit created when its internal 1R resistors failed.

## SAFETY CONSEQUENCE AND IMPLICATIONS

No safety consequences are associated with this event. Plant response to the manual reactor trip was normal. All safety systems operated as required.

## CORRECTIVE ACTIONS

Corrective actions include:

Repair of the 11 MG set (complete).

## PREVIOUS EVENTS

There were no similar events in the past three years.

## COMMITMENTS

There are no regulatory commitments contained in this LER.